static int handle_cmdline(int *argc, char ***argv); static char *read_line(int fd); static const
char *progname; static const char *socketfile = ACPI_SOCKETFILE; static int max_events; static void
time_expired(int signum) { exit(EXIT_SUCCESS); } int main(int argc, char **argv) { int sock_fd; int
ret; /* handle an alarm */ signal(SIGALRM, time_expired); /* learn who we really are */ progname =
(const char *)strrchr(argv[0], '/'); progname = progname ? (progname + 1) : argv[0]; /* handle the
commandline */ handle_cmdline(&argc, &argv); /* open the socket */ sock_fd = ud_connect(socketfile);
if (sock_fd < 0) { fprintf(stderr, "%s: can't open socket %s: %s\n", progname, socketfile,
strerror(errno)); exit(EXIT_FAILURE); } fcntl(sock_fd, F_SETFD, FD_CLOEXEC); /* set stdout to be
line buffered */ setvbuf(stdout, NULL, _IOLBF, 0); /* main loop */ ret = 0; while (1) { char *event;
/* read and handle an event */ event = read_line(sock_fd); if (event) { fprintf(stdout, "%s\n",
event); } else if (errno == EPIPE) { fprintf(stderr, "connection closed\n"); break; } else { static
int nerrs; if (++nerrs >= ACPI_MAX_ERRS) { fprintf(stderr, "too many errors - aborting\n"); ret = 1;
break; } } if (max_events > 0 && --max_events == 0) { break; } } return ret; } static struct option
opts[] = { {"count", 0, 0, 'c'}, {"socketfile", 1, 0, 's'}, {"time", 0, 0, 't'}, {"version", 0, 0,
'v'}, {"help", 0, 0, 'h'}, {NULL, 0, 0, 0}, }; static const char *opts_help[] = { "Set the maximum
number of events.", /* count */ "Use the specified socket file.", /* socketfile */ "Listen for the
specified time (in seconds).",/* time */ "Print version information.", /* version */ "Print this
message.", /* help */ }; static void usage(FILE *fp) { struct option *opt; const char **hlp; int
max, size; fprintf(fp, "Usage: %s [OPTIONS]\n", progname); max = 0; for (opt = opts; opt->name;
opt++) { size = strlen(opt->name); if (size > max) max = size; } for (opt = opts, hlp = opts_help;
opt->name; opt++, hlp++) { fprintf(fp, " -%c, --%s", opt->val, opt->name); size = strlen(opt->name);
for (; size < max; size++) fprintf(fp, " "); fprintf(fp, " %s\n", *hlp); } } /* * Parse command line
arguments */ static int handle_cmdline(int *argc, char ***argv) { for (;;) { int i; i =
getopt_long(*argc, *argv, "c:s:t:vh", opts, NULL); if (i == -1) { break; } switch (i) { case 'c': if
(!isdigit(optarg[0])) { usage(stderr); exit(EXIT_FAILURE); } max_events = atoi(optarg); break; case
's': socketfile = optarg; break; case 't': if (!isdigit(optarg[0])) { usage(stderr);
exit(EXIT_FAILURE); } alarm(atoi(optarg)); break; case 'v': printf(PACKAGE "-" VERSION "\n");
exit(EXIT_SUCCESS); case 'h': usage(stdout); exit(EXIT_SUCCESS); default: usage(stderr);
exit(EXIT_FAILURE); break; } } *argc -= optind; *argv += optind; return 0; } #define MAX_BUFLEN 1024
static char * read_line(int fd) { static char *buf; int buflen = 64; int i = 0; int r; int searching
= 1; while (searching) { buf = realloc(buf, buflen); if (!buf) { fprintf(stderr, "ERR: malloc(%d):
%s\n", buflen, strerror(errno)); return NULL; } memset(buf+i, 0, buflen-i); while (i < buflen) { r =
read(fd, buf+i, 1); if (r < 0 && errno != EINTR) { /* we should do something with the data */
fprintf(stderr, "ERR: read(): %s\n", strerror(errno)); return NULL; } else if (r == 0) { /* signal
this in an almost standard way */ errno = EPIPE; return NULL; } else if (r == 1) { /* scan for a
newline */ if (buf[i] == '\n') { searching = 0; buf[i] = '\0'; break; } i++; } } if (buflen >=
MAX_BUFLEN) { break; } buflen *= 2; } return buf; }static int handle_cmdline(int *argc, char
***argv); static void close_fds(void); static int daemonize(void); static int open_logs(void);
static void clean_exit(int sig); static void reload_conf(int sig); static char *read_line(int fd);
/* global debug level */ int acpid_debug; static const char *progname; static const char *confdir =
ACPI_CONFDIR; static const char *logfile = ACPI_LOGFILE; static const char *eventfile =
ACPI_EVENTFILE; static const char *socketfile = ACPI_SOCKETFILE; static const char *lockfile =
ACPI_LOCKFILE; static const char *logfilegroup = ACPI_LOGFILE_GROUP; static int nosocket; static
const char *socketgroup; static mode_t socketmode = ACPI_SOCKETMODE; static int foreground; int
main(int argc, char **argv) { int event_fd; int sock_fd=-1; /* learn who we really are */ progname =
(const char *)strrchr(argv[0], '/'); progname = progname ? (progname + 1) : argv[0]; /* handle the
commandline */ handle_cmdline(&argc, &argv); /* close any extra file descriptors */ close_fds(); /*
actually open the event file */ event_fd = open(eventfile, O_RDONLY); if (event_fd < 0)
{ fprintf(stderr, "%s: can't open %s: %s\n", progname, eventfile, strerror(errno));
exit(EXIT_FAILURE); } fcntl(event_fd, F_SETFD, FD_CLOEXEC); /* * if there is data, and the kernel is
NOT broken, this eats 1 byte. We * can't have that. This is ifdef'ed out on the assumption that old
kernels * are out of popular use, by now. */ #ifdef TEST_FOR_BAD_KERNELS /* * Older kernels did not
support read() properly or poll() at all * Check that the kernel supports the proper semantics, or
die. * * Good kernels will respect O_NONBLOCK and return -1. Bad kernels * will ignore O_NONBLOCK
and return 0. Really bad kernels will block * and overflow the buffer. Can't deal with the really
bad ones. */ { int fl; char buf; fl = fcntl(event_fd, F_GETFL); fcntl(event_fd, F_SETFL, fl |
O_NONBLOCK); if (read(event_fd, &buf, 1) == 0) { fprintf(stderr, "%s: this kernel does not support
proper " "event file handling.\n" "Please get the patch from " "http://acpid.sourceforge.net\n",
progname); exit(EXIT_FAILURE); } fcntl(event_fd, F_SETFL, fl); } #endif /* open our socket */ if
(!nosocket) { sock_fd = ud_create_socket(socketfile); if (sock_fd < 0) { fprintf(stderr, "%s: can't
open socket %s: %s\n", progname, socketfile, strerror(errno)); exit(EXIT_FAILURE); } fcntl(sock_fd,
F_SETFD, FD_CLOEXEC); chmod(socketfile, socketmode); if (socketgroup) { struct group *gr; struct
stat buf; gr = getgrnam(socketgroup); if (!gr) { fprintf(stderr, "%s: group %s does not exist\n",
progname, socketgroup); exit(EXIT_FAILURE); } if (stat(socketfile, &buf) < 0) { fprintf(stderr, "%s:
can't stat %s\n", progname, socketfile); exit(EXIT_FAILURE); } if (chown(socketfile, buf.st_uid, gr-
>gr_gid) < 0) { fprintf(stderr, "%s: chown(): %s\n", progname, strerror(errno)); exit(EXIT_FAILURE);
} } } /* if we're running in foreground, we don't daemonize */ if (!foreground) { if (daemonize(

University Computer Club

Fresher's Guide 2006

Events in 2006

UCC Fresher's Welcome
Friday the 10th of March
7.00 PM – 11.00 PM
Cameron Hall Loft (above the UCC)

The fresher's welcome is to welcome you, as a new member, into the club. There will be a number of older members there to chat with. This is a great event to get to know some people and put faces to names. First time members get **FREE** pizza!

April Fool's Lan
Saturday the 1nd of April
3.00 PM – some time Sunday
Cameron Hall Loft (above the UCC)

The name explains it all. The UCC runs a LAN once every two months or so. These are your best chance to play against other UCCans at the LAN games of your choice. LANs are **FREE** for members, but feel free to bring some friends too.
More details closer to the event.

UCC Camp
Easter Long Weekend
(to be confirmed)

UCC Camp is traditionally held in December, but this year we're doing it at Easter. It'll be less hot. Lots of gaming and shenanigans will take place while connected to the Internet with naught but a modem.

More details closer to the event.

Cameron Hall Charity Vigil
Semester 2 – date to be confirmed
(more details closer to the event)

Once a year all of the clubs in Cameron Hall get together and hold a night of fun to raise money for charity. There is a cover charge, but you do get fed.
More details later in the year.

UCC Annual General Meeting
Tuesday the 14th of March
1.00 PM (common lunch hour)
Guild Council Meeting Room

The AGM is the meeting at which the new UCC committee will be elected for 2006. The only way to be represented is to attend. As a fresher, you should attend in order to run for the position as Fresher Representative. If you don't know where the Guild Council Meeting Room is, arrive in the UCC a little early and follow the mass exodus.

Zone3 Midnight2Dawn
Saturday the 24th of June
(more details closer to the event)

Blast away that exam stress with the post exams M2D at Zone3. Everyone loves laser combat, and everyone also loves laser combat after not having had any sleep and only just having finished a 3 hour long Physics exam. Come join us, but be warned; some of our players are quite experienced.

The UCC's 32nd Anniversary Dinner
Friday the 1st of September
(more details closer to the event)

The UCC has a birthday. This year, the UCC turns 32 (0x20). Dinner has been held at a number of venues over the years, but is always priced for students. Last year, we celebrated 31 long years at Terrazza on Hamden Rd. Come help us celebrate 32.

for more events, check out
http://www.ucc.asn.au/infobase/events/

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Foreword

If you're reading this, then you've either joined, or are currently thinking about joining the UCC. If you're thinking about joining, do so now! Seriously, don't wait, or they'll run out of membership forms, like they did two years ago. You can start reading this again once you've joined up.

We write this fresher's guide to help you, the new members, get accustomed to the UCC. We hope you find this guide helpful, nay indispensable, as well as entertaining.

So have a read. New members should especially read the sections on getting their computer account set up, the UCC committee and other club groups, *dispense* and becoming more involved in club life.

I am looking forward to meeting as many of you as possible in the coming year (turn up to the Fresher's Welcome!), and I hope that you become active members of the club for many years to come.

    --Davyd Madeley
    Editor, 2006 Fresher's Guide
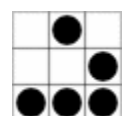
Welcome from the President

Welcome to the University Computer Club, now in its 32nd year of existence.

Whether you just want access to a computer to check your email, cheap drinks, an environment to work on a cool hardware/software project, or just hang out and chat with people enthusiastic about computing, being a member of UCC helps you do any or all of the above! The club is as diverse as it is old (older than the Computer Science department itself!).

Drop in and explore what we have to offer, and don't be afraid to ask for help. Despite our t-shirts, we don't really bite!

> Bernard Blackham
> UCC President, 2005

About the University Computer Club

The University Computer Club (or UCC for short) is a very unique group indeed. This is the UCC's 32nd year, making it older than clubs like the Homebrew Computer Club of Bill Gates and Steve Wozniak fame. The UCC has also had its share of (in)famous hackers, with members who have gone on to work at IBM, Apple, Microsoft and Berkeley. Members of the UCC have also been involved in numerous high profile open source projects, including *GNOME*, *Mozilla*, G++ (the *GNU* C++ compiler), *FreeBSD* and the *Linux* kernel.

For these reasons, new members may find the UCC to be a little intimidating at first. There are a lot of strange people (they're not all weird), sitting at a lot of strange computers (they're not all PCs), running even stranger software (it's not all Windows), but stick around and get involved. UCC caters for everyone, from hardcore operating systems geeks, to people who like to do scary things with hardware, to budding electronics nuts, robotics gurus, elite gamers and even people who just want a chair and a computer on which to read their email.

The UCC runs a variety of hardware and different computer architectures including x86(-64), PowerPC, MIPS, Alpha, SPARC and m68k, running operating systems like IRIX, HP-UX, MacOS 7, 8, 9 and X, Linux, BSD, Solaris and, of course, Windows. Unfortunately, we don't currently have anything running NeXTStep or VMS.

Getting Involved

So you've joined the UCC and you want to get involved? It's easier then you might think. Just turn up to the club room (see the map) and hang around. Some things you might like to know about getting involved with the club are detailed below.

Setting Up Your Account

One of the reasons for joining the UCC is to get a machine account. Machine accounts give you access to all of the UCC machines (with a few exceptions), as well as email, a web presence and many other benefits.

To set up your UCC account, you will need to go to the UCC clubroom (see the map on the back of this guide) and find a *Wheel* or *Committee* member. If you go up to the clubroom on O'Day there will probably be a Wheel member waiting for you, otherwise you'll have to shout out asking for help from a Wheel member. Remember Wheel members habitually go to bed in the morning, and get up in the afternoon, you might not be in their time zone.

Once you have secured your Wheel member, you'll need to show them your UCC membership card (which you got when you joined). You will also need to think of an user

name for your account. Your user name will be used when log onto UCC machines, as well as for your email address and web page. For example, the user *murphy* will have the email address *murphy@ucc.asn.au* and the website *http://murphy.ucc.asn.au/*.

If you can't think of a user name, a good starting point is to try using your real name or your nick name in high school. Unfortunately, after 30+ years, most of the common names are taken already, so you might have to include an initial somewhere.

Events

The UCC runs an incredible number of events throughout the year, significantly more than most other clubs on campus. You can see a good selection of events planned for 2006 on the inside cover of this guide. Not all of our events are computer-ish in nature. However, a significant portion of them are (we are a computer club after all). Events include LAN gaming nights, the birthday dinner and of course the Fresher's Welcome. We have also run the occasional programming competitions. UCC members also throw a number of informal parties throughout the year, which members are free to attend.

Events, both formal and informal, are announced on one of the *mailing lists*[1] and the website[2]. There are two mailing lists commonly used for events: *ucc-announce* and *ucc*. There is more on the UCC's mailing lists, near the back of this guide.

Projects

Projects are what make the UCC cool. At any one time, pretty much everyone in the UCC is working on something, usually at the detriment of their studies. The sum of the UCC's membership covers pretty much everything you want to know on topics like electronics, computer programming, physics, astronomy, web design, robotics, civil engineering and even things like medicine, music and fine arts. You may have to ask on the *ucc* mailing list to find some of these people, but they are usually very willing to help.

Some ongoing projects for 2005 include:
- the OpenDispense software project;
- designing card readers to interface with the dispensing machines and the electronic door;
- restarting the UCC newsletter, *Murphy's Lore;*
- electronic lockers;
- the Monorail; and
- many, many more...

More information on projects can be found on the web[3].

If you have a project of your own, mention it to some people. Ask around for help in the clubroom and on the *mailing list*. You might find some help... if you ask politely.

The UCC Committee

Like most clubs, the day to day running of the UCC is handled by a committee. The committee spends the club's money, ensures we're well stocked with coke and snacks, and organises events. In order to keep the day to day running of the club smooth, the UCC delegates certain functions to other groups, such as *Wheel*, *Coke*, and *Door* (see below).

Any member is permitted to attend a committee meeting, unless the President has declared the meeting is closed to general members. If you would like to receive reminders of the meetings, as well as the upcoming agenda, subscribe to the *committee* mailing list.

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1 UCC Mailing Lists can be found at http://lists.ucc.gu.uwa.edu.au/mailman/listinfo
2 http://www.ucc.asn.au/infobase/events/
3 http://www.ucc.asn.au/projects/

According the the UCC Constitution, the committee is composed of eight members:

President president@ucc.asn.au	The President is the figurehead of the club and the club's primary liason with the Guild. He or she is also responsible for coordinating the committee and chairing the meetings.
Vice President vp@ucc.asn.au	The Vice President assists the President in his or her duties, filling in and helping out where necessary.
Secretary secretary@ucc.asn.au	The Secretary is responsible for dealing with correspondence in and out of the club. It is also his or her job to take minutes at committee meetings, and ensure they are posted to the mailing list and on the web.
Treasurer treasurer@ucc.asn.au	Quite possibly the hardest job on committee, the Treasurer handles the club's finances. This involves regular banking, clearing out the cashbox and preparing biannual budgets for the Guild.
Ordinary Committee Members (x3) ocm@ucc.asn.au	The three OCMs assist the committee as needed. OCMs carry out tasks like organising events, restocking supplies in the vending machine and helping to produce club publications.
First Year Representative fresher@ucc.asn.au	The Fresher Rep is a position with a long tradition of broken promises. Every year, the Fresher Rep promises to turn up to committee meetings and fails to deliver. The job of the fresher rep is similar to that of an OCM, however they also act as the liason between the freshers and the rest of the club.

The President, Vice President, Secretary and Treasurer form the Club Executive and thus are ultimately responsible for the actions of the club. This means they are the sole signatories of the UCC bank account, and liable for the actions of the club as a whole.

As members of the UCC, you are eligible to run for any position on committee you wish. Elections are held at our Annual General Meeting and nominations are had at the meeting itself. We generally consider First Year Representative to be the best position for people new to the functioning of the UCC committee. However in the past freshers have been known to fill other roles, notably that of an OCM.

You do not have to be nominated for the position of fresher rep, all freshers are automatically nominated for the position (unless, of course, you win another position).

TLAs – Three Letter Acronyms

Most UCC members have a TLA to identify themselves. You don't have to choose one immediately; however they are commonly used at committee meetings and to refer to people in shorthand. Your TLA can be anything, as long as it's unique. Originally it was limited to only letters; however now people use letters, numbers and symbols easily available on the keyboard.

The history behind the UCC using TLAs is that they were used to log in on operating systems that used RAD40 (Radix 40) for encoding usernames. A list of known members TLAs is available online[4].

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4   http://www.ucc.gu.uwa.edu.au/member/tla.ucc

UCC Groups

The UCC committee delegates specific duties and responsibilities to other people in the club. These groups, traditionally modelled after UNIX groups, are referred to often. It pays to be aware of what the responsibilities of each group are.

Wheel wheel@ucc.asn.au	Wheel is in charge of maintaining the club's machines. They are the group with root/administrator access and therefore are the best group to see if you are having problems with the computers. Wheel maintains its own membership, but works hand in hand with Committee on issues relating to account policy. If you abuse your account, it will be locked by a Wheel member. The unlocking of accounts is at the discretion of Committee. Wheel have infrequent meetings, where they sing the *secret wheel song.* These meetings are closed to non-Wheel members.
Coke coke@ucc.asn.au	The Coke group are the people to talk to if you want to add money to your *dispense* account (see the section on *dispense*) they can also credit your account for bad dispenses and other tasks related to *dispense*. Members of Coke are appointed by Committee.
Door door@ucc.asn.au	The Door group is responsible for the clubroom itself. Only a member of door group can unlock the clubroom and keep it open for members during the day. This means that if the only Door group member in the room has to leave, then everyone will have to leave until another Door group member arrives. Door group is appointed by the Committee, however has a limited membership due to regulations set by the Guild.
Webmasters webmasters@ucc.asn.au	The Webmasters are charged with maintaining the UCC web presence. Becoming a Webmaster usually involves showing some interest in the UCC website, as well as approval from an existing Webmaster or member of *Wheel*.

Unlike committee, obtaining membership to one of the UCC groups does not involve being elected. Each of these groups entails a certain amount of trust, so you may not be allowed to join them straight away. The exact entry requirements are often vague and it is generally accepted that you will nominate yourself once you feel you meet those requirements. Members join Wheel by invite only, and will be asked to attend a Wheel Meeting, where they too will be taught the *Secret Wheel Song*. Do not despair, sticking around and showing an interest through contribution is more important then just having the skills.

UCC Machines

In the clubroom...

User Servers	*martello* (Debian) *manbo* (Solaris) *mermaid* (Debian) *morwong* (Tru64) *mussel* (Debian)
Oligoboots	*cobbler* (Windows 2000/Debian) *cybium* (Windows XP/Debian)
sgi Indigo 2	*azure* (IRIX 6.5)
Sun Ultra 10	*sacheto* (Solaris 10)
Macintosh	*arctic* (MacOSX) *bowser* (MacOS8) *mario* (MacOS8) *sultana* (Debian) *toad* (MacOS8)
X-Terms	*samantha* (connected to *manbo*)
Diskless Clients	*velvet* (Debian) *pitch* (Debian)
Alpha	*melanopus* (Debian)
Printers	*phosphorus* (HP 1320)

Services...

Dispense	*mermaid* *mussel*
DNS	*mooneye* (Debian)
Files	*manbo* *martello*
Flame	*mooneye*
FTP	*mermaid*
Login	*manbo* *morwong* *martello*
Mail	*mooneye*
Routing	*madako* (Debian)
Switching	*cthulhu* *betoli* *olive*
WaveLAN	*flying* (Debian)
Music	*maroon* (Debian)
Web (HTTP)	*mermaid* *mooneye*
Webcams	*flying* *nautilus* (MacOS9) *maroon* *novorossiisk* (MacOS7)

Each user has two different home directories, a secure home directory on *martello* and an insecure home directory on *manbo*. Each machine mounts one or the other, except for mussel which mounts both. Some machines can not be logged into by non-Wheel members. Machines not listed do not mount any home directories.

Uses secure home directory	Uses insecure home directory	Not for general access
martello	arctic	flying
mermaid	cobbler	madako
morwong	cybium	mooneye
mussel	mussel (as /away)	
sultana	sacheto	
	melanopus	
	pitch	
	velvet	

You can find out more about our machines, including exciting bits of history, on the web[5].

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5   http://www.ucc.asn.au/machines/

Common UNIX Commands

A large number of the UCC's computers run some form of UNIX. If you're never encountered UNIX before, it might be a bit daunting for you. While many UNIX operating systems come with nice graphical desktops, the power is all in the shell. Here are some common shell commands, in no particular order.

Command	Description
`logout` (you can also use Ctrl-D)	Logs you off the system (or closes the shell). Do this before you leave.
`ls` *<directory name>*	Lists the files in the given directory (like `dir` on DOS).
`cd` *<directory name>*	Change to the given directory.
`mkdir` *<directory name>* `rmdir` *<directory name>*	Add/remove the specified directory (like `md`/`rd` on DOS).
`pwd`	"Print Working Directory". Displays the path of the directory you are currently in.
`more` *<file name>* `less` *<file name>*	Read through a file (*space* scrolls on a page, *q* will quit).
`cp` *<source file> <destination>*	Make a copy of a file in a new place.
`mv` *<source file> <destination>*	Moves a file to a new place (also used for renaming files).
`rm` *<file name>*	Deletes (removes) a file permanently.

`pine`
`elm`
`mutt`
	Three different programs to use for reading your mail. Pine is often easiest for first time users, although lacks some features.

`nano` *<file name>* `vim` *<file name>* `emacs` *<file name>*	Three different editors to edit text files. `vim` and `emacs` are somewhat more complex to use than `nano`, but much more powerful.

`finger`
`who`
`w`
	Check to see who else is on a machine, how long they've been idle for and where they are connected from.

`w3m` *<url>* `lynx` *<url>*	Two text based web browsers. They can take a bit of skill to drive. In w3m, press *Ins* to bring up a menu.
`ssh` *<host name>* `ssh` *<hostname>* `-l` *<username>*	Log in (securely) to another (UNIX) machine. Specify a different username if required (eg, for tartarus).
`ping` *<host name>*	Ping another machine to see if it is up and what the latency between you and the target is. Press *Ctrl-C* to cancel.
`man` *<command name>*	Displays the manual for a command. Manuals offer lots of information about the command you are interested in. See `man man` for more information.
`top`	Displays an updating list of current processes on the system.
`ps` `ps aux` *(Linux)* `ps -ef` *(other UNIX)*	List the processes you are running on this terminal (names and ids). `ps aux` and `ps -ef` display all running processes on the system.
`kill` *<process id number>*	Stop a process. `kill -9` will forcibly kill a process.

Many commands have an available help summary that you can get by typing *<command name>* `--help` (eg `ls --help`) or by reading the *man*page (see man above).

Using the Clubroom

The UCC clubroom is located on the 2nd floor of Cameron Hall (right above the Guild Tavern, see the back cover for a map). The UCC is usually open from about 9am (after the first door member arrives from 8am lectures) till 11pm (when UWA Security kick us out). It is also open on weekends from about noon till 11pm.

You can see if the clubroom is open over the Internet by using the webcams[6] or by fingering door@ucc.asn.au[7].

Books

The UCC has an incredibly large number of books. As well as lots of books we've picked up over the years for free, the UCC also has a number of expensive, definitive texts on a variety of technical subjects. Topics include electronics, operating systems design, GUI programming and computer science. The book collection is pretty much uncatalogued and unsorted, so you'll have to search for what you're looking for. Email books@ucc.asn.au to ask if we might have a title, or to say that you're borrowing it. UCC only likes to purchase books that members will consider useful and are likely to be used, so does not have scheduled semester book buys. If you think we really must own a certain title, mail the committee.

Tools and Hardware

The UCC has a lot of tools for fixing (or destroying) things. We own a good soldering iron, a digital oscilloscope, a power drill, a jigsaw and numerous multimeters, as well as screwdrivers, various pliers, ratchets, crimping tools, saws, hammers, etc. All of these tools should be located in the big orange tool cupboard (unless someone is lazy) and should be returned there afterwards (even if someone was lazy). Tools can be borrowed, if they are written down in the *theft book*. We also have vast quantities of discrete components, random case hardware, semiconductors, integrated circuits, screws and cable. Members are free to use these.

When using the UCC's tools, please do not use them to cut through live power cables or remove (and summarily lose) radioactive alpha emitters!

Computing Facilities

You are welcome to use pretty much every machine you can see in the clubroom (unless it belongs to someone else). Most machines require your user name and password to log in (see *Setting up your Account* if you haven't already done so). There are also a number of servers in the machine room which you can log into, including *morwong*, *mussel, mermaid*, *martello* and *manbo*. See *UCC Machines* in the middle of this guide.

All UCC machines should be directly available inside UWA via the name *hostname.ucc.gu.uwa.edu.au*. Many machines are also available via our peering networks[8] (including academic networks, Internet2 and WAIX[9]). If it is not, you can use the charged service *ssh.ucc.asn.au*, the cost of which will be automatically deducted from your *dispense* account.

Many of our machines run some flavour of UNIX (Linux, Solaris, NetBSD, IRIX, etc.) so it might take a bit of time to learn how to use them. UNIX is a very powerful operating system, and many popular enterprise grade operating systems are a version of UNIX. To help you out, we have included our *Common UNIX Commands* in the middle of this guide.

We have two wireless access points available. You can access them by setting your SSID to *ucc* (for 802.11b) or *ugg* (for 802.11g). Access through these points is a bit restrictive;

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6   http://webcam.ucc.asn.au/
7   http://www.ucc.asn.au/services/door.ucc
8   To see if a host is free on a given day use http://traffictester.ucc.asn.au/
9   For a list of WAIX participants, see http://www.waia.asn.au/waix/participants.shtml

however you are able to connect to the SNAP VPN[10]. If you're having trouble, try asking someone with a laptop (not an uncommon sight these days), if they're not too busy.

Getting Help

Sometimes you might get stuck trying to work out how to use a machine or something in the UCC. Don't be afraid to ask for help. Not everything people do in the UCC is easy to understand. Lots of the stuff designed for UCC is a bit complicated, and it might not be obvious how it works. Find someone who looks knowledgeable (and preferably not too busy) and perhaps ask them if they can help you out.

Dispense

Without a doubt, *dispense* is one of most singularly important things in the UCC. It is a mish-mash of software and hardware and over the years has evolved from a simple way to electronically dispense drinks to your UCC electronic wallet. Services, paper, phone calls, drinks and snacks are all paid for with *dispense*. Dispense also provides a method for checking the status of the doors and movement sensors, as well as allowing *Door* group to open the electronic door lock.

Maintaining Your Coke Account

The UCC drink and snack machines do not accept money directly. To get at their delicious contents you will first need some *coke credit*. The usual method of doing this is to shout "Is anyone here in Coke?" in the clubroom. Assuming someone says "Yes!", you can ask them to please add some money to your account. You will need to get a plastic bag from on top of the cash box (on top of the filing cabinet, near the TV), show them the bag with the money in it, read them the bag number and then put it in the slot in the top of the cash box.

Using Dispense from a Console

The traditional way to use dispense is via a UNIX terminal on *morwong*, *mermaid* or *mussel* or *martello*. Typing `dispense` at the prompt will bring up a list of purchases available to you. You will not be able to select items you do not have enough credit for. If you do not wish to select an item you can press *q* to return back to the prompt. Dispense has options to pay for other items besides drinks and snacks. The selection of such items will depend on the time of year, but commonly include tickets to events and items like the UCC T-shirt. You can also pay for phone calls and paper for the laser printer this way. You can then ask someone on committee for your item, informing them you dispensed the item.

Using Dispense from the Snack Machine

After many years, the snack machine has finally been connected to *dispense*. You can access dispense through the snack machine keypad. However first you will need to set up your account for this access. Use the `ucc-set-pin` command from a UNIX prompt on *mussel*, *martello* or *mermaid* to do this.

You can now type in your 5 digit user id, followed by your four digit PIN to authenticate to dispense. As well as the two digit codes for snacks in the machine, you can request a drink by selecting the slot number followed by an 8 (the machine will tell you what drinks are available if you wait for it to all scroll past; coke is always 68). If you were in Door group, you could also use the machine to open the door.

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10 http://snap.uwa.edu.au/

Dispense Version 2

People are currently working on a next generation version of *dispense.* The next version of dispense will give us a dispense library for a better console application (which will be able to dispense snacks as well), GUI applications, and countless other improved features. There is nothing quite like *dispense* anywhere else in the world, and the people who have worked on it have gone down as heroes in the UCC History. Besides enabling us to do even better things with *dispense,* version 2 will allow an entire new generation of hackers to become infamous for future generations of UCCans.

UCC Online

The UCC currently has a number of websites and online services available for members. Some UCC websites include:

Homepage	http://www.ucc.asn.au/
Webmail	http://webmail.ucc.asn.au/
Mailing Lists	http://lists.ucc.gu.uwa.edu.au/mailman/listinfo
Planet UCC	http://planet.ucc.asn.au/
Webcams	http://webcam.ucc.asn.au/
Wiki	http://wiki.ucc.asn.au/

Mailing Lists

The UCC's mailing lists are the lifeblood of the club. Many of our members are not able to be around the clubroom due to work commitments, or because they are no longer in Perth. Yet still these members retain a partially active interest in the club through its mailing lists. The UCC hosts numerous mailing lists, for all manner of topics, browsable via the web interface listed above.

The UCC has a number of lists that you might be interested in:

- *ucc-announce* – the announcements list, you were asked if you wanted to be subscribed to this list when you signed up. If you said, no, subscribe now.

- *ucc* – the general discussion list, most of the UCC's discussion takes place on this list, as well as announcements for informal events like parties and trips to the pub (when you're old enough). Most UCCans are subscribed to this list.

- *committee* – the open committee list, anyone interested in committee can sign up to this mailing list. The committee also has a private list for sensitive matters, *committee-only*.

- *tech* – the list for discussing the UCC's hardware and computers. General computer discussion should take place on the *ucc* list instead.

Flame

Flame is the UCC's MUD (Multi User Dungeon). However, unlike most MUDs, Flame is not a game, and is instead used primarily for chatting to other UCCans. Anybody can connect to flame and create themselves a character, as well as develop new items and rooms for themselves and others. You can easily connect to flame using telnet (`telnet flame.ucc.asn.au 4242`) or using a MUD client such as TinyFugue.

Many regular users of Flame have been around the UCC for quite a while, so please be courteous to them, as well as all other Flame users.

Changing Your UCC Password

If you should need to change your UCC password, you can do it in one of two ways.

- on a Windows machine – simply use the standard Ctrl-Alt-Delete/Change Password method, and your password should be changed on all machines

- on a UNIX machine, use the yppasswd command (not passwd, since we use NIS to authenticate users). This will not update your password on the Windows machines unfortunately, these will still use your old password.

Sponsors

The UCC thanks all of its sponsors in 2005 and for 2006, as well as sponsors from previous years.

Thanks to Hewlett-Packard for providing us with free Tru64 licensing for *morwong*.

Thanks also to Fugro Seismic Imaging and Lateral Sands in Perth for the donation of Alpha and Sparc hardware in 2005.

Thanks to all the UWA departments who sent us computer gear to sort through for spares and even replacement servers.

For more information on all of our sponsors, both this year and in previous years, check out the website: http://www.ucc.asn.au/sponsors/

Acknowledgements and Colophon

This guide was published thanks to the hard work of Cameron Patrick, David Adam, James Andrewartha and Davyd Madeley. This guide rests of the shoulders of giants, thanks to past work by Bernard Blackham, Nick Rohrlach and many forgotten others.

Also thanks to everyone who manned the UCC's stall and clubroom on O'Day. Finally, thanks to the Committee and member of Wheel, who keep the club running, even when they really don't have time.

This guide was written in OpenOffice – the open source office suite.

For more information, remember to check out the UCC's website at: http://www.ucc.asn.au/
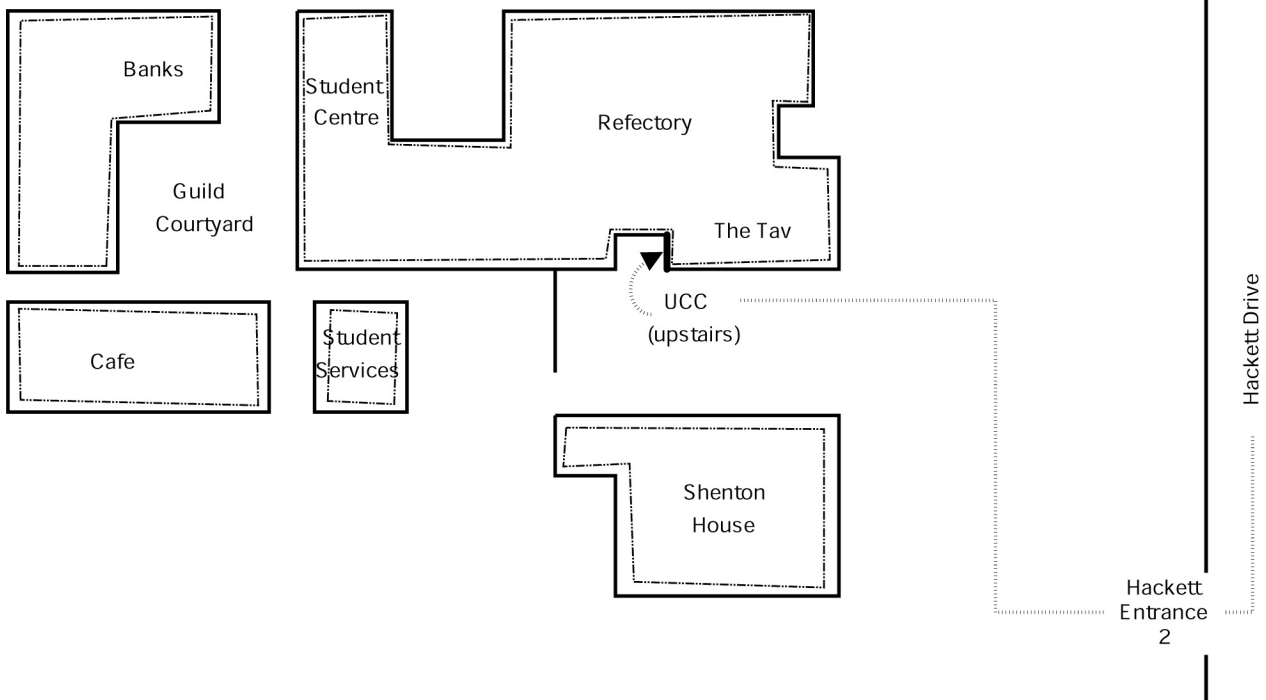
Glossary

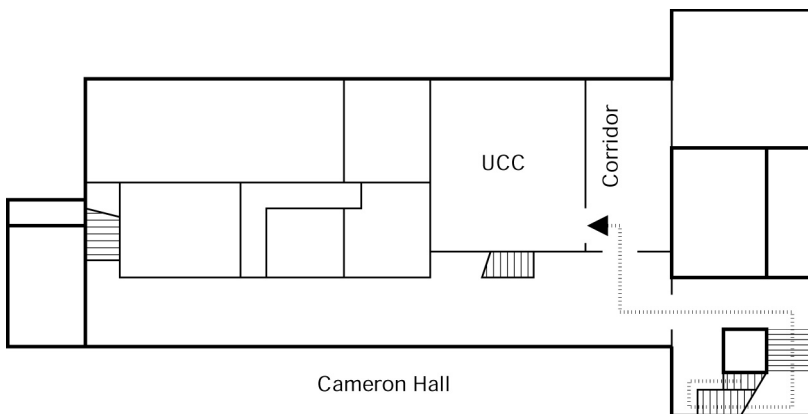|	
(ACC) Murphy	*aka. Dr ACC Murphy* – A Computer Called Murphy. Dr ACC Murphy is infamous around the UCC. He even receives mail!
Alpha	A CPU architecture produced by *DEC*.
BSD	Berkeley Systems Distribution – a UNIX developed at Berkeley, now better known through the FreeBSD, NetBSD and OpenBSD UNIXes.
blog	*aka. weblog* – sort of like a journal on the Internet (you don't have one?). Syndicated by a *Planet.*
coke credit	If you gotta ask, you ain't got it! Coke credit is how people usually refer to money in your *dispense* account.
Coke Group	The people who can put money (*coke credit*) in your *dispense* account.
Debian	a *Linux* distribution popular in the UCC due to its community nature.
DEC	Digital Equipment Corporation – made a lot of cool stuff, including the PDP and VAX computers and VMS. Bought out by Compaq, who were bought out by HP.
DECServer	Sort of a router for serial ports, allows you to connect to one serial port from another. Usually connected to *DEC Terminals*, servers and *dispense*.
DEC Terminal	A dumb serial terminal, useful for plugging into the serial console on servers (possibly via a *DEC Server*). Has a model number like vt100 ,vt200 or vt420.
dispense	dispense started off as a way to dispense cokes from the online coke machine, and has since grown into the way UCCans think the world should do business.
Door Group	the group of people charged with keep the room open, tidy and safe.
Firefox	A web browser by the *Mozilla* Foundation. Check it out!
Flame	Flame is the UCC's *MUD;* however unlike most MUDs, Flame is not a game, and is mostly used for chatting.
Fresher	A new university student, usually also a first time UCC member.
Fresher Rep	Fresher Committee member, usually chosen because they look like they'll make a good worker drone in the future. Represents the freshers at committee meetings, if they attend.
GNOME	GNU Networked Object Model Environment – an *open source* desktop environment aimed primarily at UNIX computers. Popular in the UCC.
GNU	GNU is Not Unix – a layer of libraries and utilities to implement a UNIX like operating system, commonly used on top of *Linux*.
IRIX	A UNIX used on machines made by *sgi.*
kernel	The core of an operating system. All operating systems have a kernel, some popular ones include the *Linux* kernel and the *Mach* kernel.
Linux	the *kernel* (basis) of an open source UNIX operating system that has developed quite a following among computer scientists and engineers.
Loft	the area above the UCC that looks down into the UCC clubroom. LAN gaming and other activities take place up there.
machine room	The UCC data centre. This is the small room with the glass doors that is located within the clubroom. All of our servers are kept in this room. It is locked when there is no one from *Wheel* around.
mailing list	a way of communicating with a very large number of people via email. The UCC has several mailing lists of varying popularity.
MIPS	Microprocessor without Interlocked Pipeline Stages – a computer

	architecture used extensively by *sgi* and in the Sony PS2.
Mozilla (Foundation)	develop several open source web related products, such as *Firefox* and Thunderbird.
MUD	Multi User Dungeon – An old type of computer game played using telnet or a MUDding application. Precursor to the modern MMORPG games like World of Warcraft. UCC has a MUD called *Flame*.
MUDder's Hand	A malady very similar to Carpal Tunnel Syndrome, however is caused specifically by MUDding in excess.
OCM	Ordinary Committee Member – the worker drones of the UCC Committee, they do lots of work, for little reward.
Oligoboot	boots more then one operating system (selectable when you boot).
NeXTStep	An operating system developed by NeXT before they were bought out by Apple. Lots of NeXTStep is incorporated into MacOSX.
open source	A software ideology, where the source code to software (what is compiled into the program you run) is freely available. Open source software is considered "free as in speech", compared to freeware which is considered "free as in beer".
Planet	A web page that syndicates *blogs.* UCC has one at http://planet.ucc.asn.au/
Secret Wheel Song	The song that is supposedly sung at the beginning of each *Wheel* meeting.
sgi	Silicon Graphics Incorporated – used to make cool graphics workstations such as the Indy and Indigo2 machines.
Shenton Park	The Shenton Park storage facility is where the UCC stores computers and other knick-knacks that will not fit in the clubroom. There are some interesting pieces of computing history stored there.
SNAP	Student Network Access Project – the way to get unrestricted access to the Internet at UWA, charged to your *tartarus* account.
Solaris	A UNIX developed by Sun Microsystems.
tartarus	Also referred to as the UWA Student Server.
theft book	this is where you write down that you borrowed tools from UCC. It is not for borrowing books; you mail books@ucc.asn.au to do that.
TLA	Three Letter Acronym – a way to refer to UCC members, often used in the minutes of meetings.
Tru64	A UNIX that is used on Alpha, now owned by Hewlett-Packard.
UCCan	someone who spends a lot of time in the UCC.
UniSFA	the University Science Fiction Association, the ones down the hall.
WAIX	WA Internet eXchange – a group of ISPs and interested bodies who peer resources on the Internet for mutual benefit.
Wheel Group	the group responsible for maintaining computers, accounts and services in UCC.
X-Term	A dumb terminal that connects to a server to display things running over the X graphics environment. Not to be confused with *xterm* which is a graphical terminal (shell) for the X environment.

Ground Floor

Banks

Student
Centre

Refectory

Guild
Courtyard

The Tav

UCC
(upstairs)

Cafe

Student
Services

Shenton
House

Hackett Drive

Hackett
Entrance
2

Second Floor

UCC

Corridor

Cameron Hall

Drink Voucher
use this code in the UCC for the drink of your choice

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